The PHENIX South Muon Tracking System

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Abstract

The PHENIX south muon spectrometer is nearing completion. We expect to commence data collection at the beginning of the next RHIC run in March 2001. This detector system will provide general muon tracking measurements. Processes to be studied include Drell-Yan, J/Psi and other heavy vector mesons, and open heavy-flavor. This includes measurements with ion beams, p-A collisions, and polarized p-p collisions. The south muon tracking system contains approximately 20,000 channels of tracking chamber cathode wires/strips and associated front-end electronics. Using cosmic ray data we have achieved 100-micron spatial resolution in the tracking chambers with an RMS noise level of less than 2mV in the front-end electronics. Construction of the tracking chambers and performance of the front-end electronics will be discussed.